

Serial No. 10/031,276  
Reply to Office Action of August 17, 2004

### REMARKS

Applicants are in receipt of the Office Action Dated August 17, 2004. Responsive to this non-final Office Action, Applicants respectfully submit the above amendments to the claims and the following remarks. Applicants also submit a Supplemental Information Disclosure Statement (IDS). Reconsideration of the present application is requested in light of these amendments, remarks, and the IDS. For the reasons set forth below, it is submitted that the present Application is in condition for allowance, and such action is respectfully requested.

### Status of Pending Claims

Claims 1-21 were pending in the application. Claims 11-13 and 20 have been cancelled for the reasons given herein. New claims 22-23 have been added. Claims 1-10, 14-19, and 21-23 remain pending in the application.

### Allowable Claims

The Office Action noted that claims 11-13 and claims 20-21 were only objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants respectfully submit new claim 23 as a broader version of claims 11-13. Applicants herein cancel claim 20 and submit allowable new claim 22, reciting similar elements, in its place. Applicants have amended claim 21 as required for allowance.

### Claims Rejections

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The Office Action rejected claims 1, 3-7, 14-15, and 16-19 as anticipated under 35 U.S.C. § 102(b) by Schlameus et al., U.S. Patent No. 5,897,732 (hereafter "Schlameus"). The Office Action rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Schlameus in view of Barth et al., U.S. Patent No. 5,086,836 (hereafter "Barth"). The Office Action rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Schlameus in view of Nippe et al., U.S. Patent No. 4,590,108 (hereafter "Nippe"). The Office Action rejected claims 9-10 under 35 U.S.C. § 103(a) as being unpatentable over Schlameus. Applicants respectfully traverse these rejections and request reconsideration of all pending claims.

#### Claim Rejections under § 102

The Office Action rejected claims 1, 3-7, 14-15, and 16-19 as anticipated under 35 U.S.C. § 102(b) by Schlameus. Applicants respectfully traverse these rejections and request reconsideration. Applicants respectfully submit that Schlameus has been mischaracterized. As noted in the present application on page 7, first paragraph, Schlameus "accomplishes the wrapping operation with basically no compressive forces applied to the insulation." This is clearly spelled out in Schlameus. First, in the Background section, column 3, lines 38-47:

It is desirable to be able to apply a continuous longitudinal strip of compressible insulating material to a pipe or tube in a manner whereby compression of the insulating material is substantially eliminated. *This would provide the advantage of allowing the insulating material to retain its thermal conductivity or K value after application to the pipe or tube which would result in the use of a reduced thickness or fewer layers of the insulating strip and allow for predictable modelling [sic] of insulated tube surface temperatures and tracer conductances.*

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(Emphasis Added).

In Schlameus, eliminating compression is carried out multiple ways. First, as noted in the Office Action, at column 7, lines 3-10:

The insulating strip M is segregated from the tube T by the tube positioning die 14. The folding or curving of the insulating strip M in the bore 24 of the strip shaping die 12 is accomplished without compressing the insulating strip M to any significant degree. The only compressing of the insulating strip M in the strip shaping die 12 is that resulting from the gentle folding process, which compression is negligible.

(Emphasis Added). Continuing down column 7, lines 11-27:

Preferably, the tube T is positioned such that a slight amount of pressure is applied near or to one edge of the insulating strip M at the outermost tip 51 at the exit end 52 of the finishing die 16. The exit end 52 of the finishing die opening 50 spirals back from the outermost tip 51 causing the effective cross-sectional exit diameter to become progressively larger from one edge of the insulating material M to the other edge. This causes the pressure to relieve along the radial axis from one edge of the insulating strip M at the furthermost extension of the outermost tip 51 towards the other edge. The insulating strip M is shaped and flows away from the pressure area across its radial axis until the edges meet at the exit point 51 of the finishing die 16. Any compression occurring within the finishing die 16 is relieved at the exit point of the tip 52. The insulating strip M is captured in place by helically wound tape W at or beyond the exit point of the finishing die tip 52.

(Emphasis Added). Applicants respectfully submit that "captured in place" does not teach or fairly suggest adding a compressive force in a patent where "compression of the insulating

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material is substantially eliminated." (Col. 3, lines 40-41) Schlameus clearly teaches that compression is to be avoided or kept negligible. Thus, Schlameus clearly teaches away from the pending claims.

In contrast, in the present application, independent claim 1 recites, in part, "tensioning the tape-like material so that the insulating material is compressed by the tape-like material to a predetermined diameter for providing a desired conductance output." Schlameus neither teaches nor fairly suggests such a limitation in combination with the other elements of independent claim 1.

Likewise, independent claim 14 recites, in part, "a tape-like material wrapped around the insulation such that the insulation is compressed to a desired, predetermined thickness for providing a desired conductance rate." Schlameus neither teaches nor fairly suggests such a limitation in combination with the other elements of independent claim 14.

Similarly, independent claim 16 recites, in part, "passing an insulating material through the die such that the insulating material is compressed a first amount as the insulating material passes from the wide inlet of the die to the narrow outlet for conforming the insulating material to a cylindrical shape." Schlameus neither teaches nor fairly suggests such a limitation in combination with the other elements of independent claim 16. In addition, independent claim 16 further recites, in part, "compressing the insulating material a second amount after the insulating material passes through the narrow outlet for providing a predetermined thickness of insulating material so that a predetermined thermal conductance rate can be provided." Schlameus also

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neither teaches nor fairly suggests this limitation in combination with the other elements of independent claim 16.

Claims 2-10 depend from independent claim 1 and are likewise allowable over Schlameus. Claim 15 depends from independent claim 14 and is likewise allowable over Schlameus. Claims 17-19 depend from independent claim 16 and are likewise allowable over Schlameus.

Further, Applicants respectfully traverse any suggestion in the Office Action that Schlameus teaches or fairly suggests any positive relationship between compression on the insulation and the thickness of insulating material as taught by the Applicant's application. Applicants do not agree that there is any such inherent teaching in Schlameus. Only by reference to Applicants' application could such an argument even be made. Moreover, the inherency argument in the Office Action's rejection of claims 16-17 is inconsistent with Schlameus' teaching to avoid compressing the insulation, as noted above. As such, Schlameus cannot teach a first compression and a second compression, as recited in claim 16.

#### Claim Rejections under § 103

The Office Action rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Schlameus in view of Barth. The Office Action rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Schlameus in view of Nippe. The Office Action rejected claims 9-10 under 35 U.S.C. § 103(a) as being unpatentable over Schlameus. Applicants respectfully

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traverse these rejections and request reconsideration. As noted above, Schlameus does not teach or fairly suggest limitations in independent claims 1, 14, and 16.

With respect to claim 2, the Office Action does not assert that any part of Barth suggests the limitations recited above with respect to independent claim 1, from which claim 2 depends. Thus, if Schlameus does not teach or fairly suggest the limitations of claim 1, the combination of Schlameus and Barth cannot suggest all of the limitations of claim 2, which incorporate all of the limitations of claim 1. Claim 2 is thus allowable over the combination of Schlameus and Barth.

With respect to claim 8, the Office Action does not assert that any part of Nippe suggests the limitations recited above with respect to independent claim 1, from which claim 8 depends. Thus, if Schlameus does not teach or fairly suggest the limitations of claim 1, the combination of Schlameus and Nippe cannot suggest all of the limitations of claim 8. Moreover, Applicants traverse the rejection on the additional ground that the Office Action nowhere provides a teaching or suggestion for combining different types of wrappings, for Schlameus and Nippe are inconsistent types of wrapping. Claim 8 is thus allowable over the combination of Schlameus and Nippe.

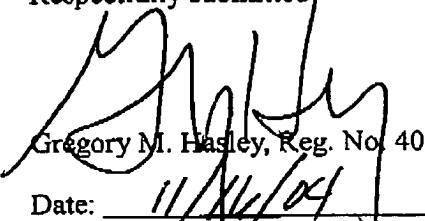
With respect to claims 9-10, the Office Action states that Schlameus as understood by a person of ordinary skill in the art make claims 9-10 obvious. Applicants respectfully traverse this rejection. As noted above, Schlameus does not teach or fairly suggest the limitations of independent claim 1, and the Office Action does not assert that a person of ordinary skill in the art would know how to extend Schlameus to do so.

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CONCLUSION

For the foregoing reasons, it is respectfully submitted that the claims are allowable and such allowance is respectfully requested. Applicant has addressed all claims standing under rejection. Applicant's comments towards the independent claims are intended to address any rejections of any dependent claims not specifically mentioned. If the Examiner has any questions or wishes to discuss the claims, Applicants encourage the Examiner to call the undersigned at the telephone number indicated below.

Respectfully submitted



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